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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,712	01/18/2002	Donald R. Glynn	DWE/GLYNN2	6321

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EXAMINER
MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)	
	10/050,712	GLYNN, DONALD R.	
	Examiner	Art Unit	
	Krishnan S Menon	1723	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *1-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-11, drawn to process of treating polluted liquid, classified in class 210, subclass 651.

II. Claims 12-20, drawn to apparatus for retrieving re-usable water, classified in class 210, subclass 295.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for another materially different process such as ultrafiltration of fruit-juices, and the process as claimed could be practiced with another materially different apparatus such as a coalescer filter.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Douglass Eggins, attorney of record, on 9/12/03 a provisional election was made without traverse to prosecute the invention of group II, claims 12-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-11

are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12,14 and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Trulson et al (US 3,977,967).

Trulson teaches an apparatus having a cross flow filter (10-fig 1, 32-fig 2) that permits substantially oil-free water (abstract), pumping means (14,16-fig 1) to circulate (22,24,26-fig 1) and to scour the membrane surface, permeate accumulation (38-fig 2) and drain means (28-fig 2) to disposal of permeate, so that in use, concentration of contaminated mixture is progressively increased (in lines 22-24-26) as in claim 12. The module has a central tubular membrane (32), an outer housing (fig 2), end fittings, contaminated liquid flowing in the tube as in claim 14, O ring seals as in claim 15 (46 fig 3, col 10 lines 50-55),

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trulson (967) in view of Yunoki (US 5,354,466).

Trulson teaches all the limitations of claim 12. Claims 16 and 20 add further limitations of a permeate accumulation means connected with compressed air for back-flushing, which is not taught by Trulson. Yunoki teaches such a back flush system (see fig 1). Claim 20 adds further limitation of minimal volume and a cleaning liquid (see Yunoki col 1 lines 38-48 and col 4 lines 6-14). It would be obvious to one of ordinary skill in the art at the time of invention to use the teachings of Yunoki in the teaching of Trulson to provide a back-flush to clean the membrane.

2. Claims 13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trulson (967) in view of Haney (US 6,099,733)

Trulson teaches all the limitations of claim 12. Instant claims add further limitations, which Trulson does not teach but Haney teaches, as follows: Claim 13: cleaning solution storage means electronic (solenoid) valve and manifold means for draining and back-flushing (Haney Fig 2A and 2B, abstract). Claims 17 and 19: computerized and control means: Haney figure, col 15 lines 43-49. Claim 18: two processing loops in back-to back relation and pivot means to enable reversal of modules for access for servicing: Haney teaches means for switching and sequencing operations for

various forward and backward flows for operation and cleaning membranes in col 14 lines 46-67. It would be obvious to one of ordinary skill in the art at the time of invention to use the teachings of Haney in the teaching of Trulson for effective cleaning of the membranes and automated operation of the system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Muraldihara et al (5,252,218) teaches an apparatus using ceramic membranes for separating suspensions from liquids similar to the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon
Patent Examiner

W. L. WALKER
SUPERVISORY PATENT EXAMINER
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